

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	65	((TCP and offload and engine) ) and parallel and TOE and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 10:44
L2	14	(TCP same completion same (parallel\$2 or concurrent\$2)) and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 10:48
L3	9	((TCP near off near load near engine) ) and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 10:55
L4	33	((TCP near offload near engine) ) and parallel\$2 and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 10:59
L5	33	((TCP near offload near engine) ) and parallel and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 11:09
L6	35	((TCP and offload and engine) ) and parallel and TOE and (@rlad<"20040107" or @ad<"20040107") not L5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 11:09
L7	1	((TCP near off near load near engine) ) and parallel and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 11:15
L8	33	((TCP near offload near engine) ) and parallel and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 11:16

## EAST Search History

L9	1	((TCP near completion near process\$5) ) and parallel and (@rlad<"20040107" or @ad<"20040107") not L5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 11:20
L10	506	TCP and coalesc\$5 and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 11:34
L11	37	(TCP and coalesc\$5 and completion and ACK) and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 11:48
L12	33	((TCP near offload near engine) ) and parallel and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:01
L13	614	RDMA and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:09
L14	18	RDMA and coales\$5 and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:09
L15	34	((Re adj transmit\$5) same (bypass)) and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:10
L16	18	((Re adj transmit\$5) same (completion)) and TCP and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:10

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L17	246	(coales\$5 same bypass\$4) and (@rlad<"20040107" or @ad<"20040107")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:10
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## EAST Search History

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L18	417	(TCP and complet\$5 and process\$5).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:12
L19	1	(TCP and complet\$5 and process\$5 and ((re adj2 transmi\$4) or (re adj2 send\$5))).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:15
L20	2	(TCP and complet\$5 and process\$5 and coalesc\$3).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:15
L21	8	(TCP and coalesc\$3).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:19
L22	114	( complet\$5 and process\$5 and ((re adj2 transmi\$4) or (re adj2 send\$5))).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:18
L24	2	(RDMA and coalesc\$3).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/22 12:19



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coalescing tcp process completion retransmit

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[C Kent](#)

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[J Mogul](#)

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Estimating the Impact of Interrupt Coalescing Delays on Steady State TCP Throughput - all 3 versions »

M Zec, M Mikuc, M Zagar - Proceedings of the 10th SoftCOM, 2002 - tel.fer.hr  
... be simple and fast, we can consider the duration of this **process** to be ... Estimating the Impact of Interrupt **Coalescing** Delays on Steady State **TCP** Throughput 4 ...  
[Cited by 10](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

Fragmentation considered harmful - all 34 versions »

CA Kent, JC Mogul - ACM SIGCOMM Computer Communication Review, 1995 - portal.acm.org  
... those of fragments already held, and **coalescing** the data ... mechanism in **TCP** allows the reassembly **process** to accurately ... Also, because in **TCP** the data stream is ...  
[Cited by 170](#) - [Related Articles](#) - [Web Search](#) - [Library Search](#) - [BL Direct](#)

Performance of TCP/IP over IS-2000 based CDMA radio links - all 3 versions »

Y Bai, P Zhu, A Rudrapatna, AT Ogielski - Vehicular Technology Conference, 2000. IEEE VTS-Fall VTC ..., 2000 - ieeexplore.ieee.org  
... With the occurrence of **coalescing**, the compatibility between the ... eg, 0.01), the fading **process** has strong ... the total transferred data, only **TCP** payload data (ie ...  
[Cited by 19](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

DPF: fast, flexible message demultiplexing using dynamic code generation - all 29 versions »

DR Engler, MF Kaashoek - Applications, Technologies, Architectures, and Protocols for ..., 1996 - portal.acm.org  
... Note that atom **coalescing** is most useful when the ... lie" and accept packets destined for another **process**. ... The **TCP** implementation is not fully **TCP** compliant (it ...  
[Cited by 153](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Exploiting Gigabit Ethernet capacity for cluster applications - all 5 versions »

G Ciaccio, M Ehlert, B Schnor - Local Computer Networks, 2002. Proceedings. LCN 2002. 27th ..., 2002 - ieeexplore.ieee.org  
... pattern (that is, polling the NIC for a short time then yield the CPU to another **process** if no ... acenic driver, IRQ-**coalescing**, MPICH/TCP acenic driver ...  
[Cited by 10](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

User-process communication performance in networks of computers - all 7 versions »

LF Cabrera, E Hunter, MJ Karels, DA Mosher - IEEE Transactions on Software Engineering, 1988 - doi.ieeecs.org  
... Section III has a **complete** discussion of the computing ... a timing analysis of the current **TCP/IP** and ... **USER PROCESS VIEWPOINT** Local area network technology in the ...  
[Cited by 53](#) - [Related Articles](#) - [Web Search](#) - [Library Search](#)

**SPLINTERING TCP TO DECREASE SMALL MESSAGE LATENCY IN HIGH-PERFORMANCE COMPUTING - all 3 versions »**

B DUNCAN - 2003 - cs.unm.edu

... Interrupt **coalescing** was turned off during testing. The echo server and client applications were the only explicit user **process** running on the machines. ... **TCP**. ...

[Related Articles](#) - [View as HTML](#) - [Web Search](#)

**Reliable datagram service provider for fast messaging in a clustered environment - all 3 versions »**

R Dasgupta - US Patent 5,699,500, 1997 - Google Patents

... normal lockrequest/grant/**completion** data, and thus, is not ... The overhead of executing **TCP/IP** for lock management ... it is delivered to the desired user **process**. ...

[Cited by 27](#) - [Related Articles](#) - [Web Search](#)

**Experience in offloading protocol processing to a programmable NIC - all 8 versions »**

AB Maccabe, W Zhu, J Otto, R Riesen - Cluster Computing, 2002. Proceedings. 2002 IEEE ... , 2002 - [ieeexplore.ieee.org](#)

... is arriving at a node, interrupt **coalescing** amortizes the ... was developed to measure the performance of **TCP/IP** and ... of this loop, the ping **process** simulates work ...

[Cited by 12](#) - [Related Articles](#) - [Web Search](#)

**Design, Implementation, and Performance Analysis of Session Layer Protocols for SCSI Over TCP/IP**

A Chadda - 2001 - iol.unh.edu

... 76 8.6.6 Effect of **Coalescing** Interrupt Time Interval on Bandwidth ... Hardware implementation of Network Protocols like **TCP/IP** is an intricate **process** by itself ...

[Related Articles](#) - [View as HTML](#) - [Web Search](#) - [Library Search](#)

**Software support for outboard buffering and checksumming - all 17 versions »**

K Kleinpaste, P Steenkiste, B Zill - ACM SIGCOMM Computer Communication Review, 1995 - [portal.acm.org](#)

... upon **completion** so that the user **process** can be ... for small transfers, copying and potentially **coalescing** the data ... the fields in the header (the **TCP** header and ...

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**Performance comparison and analysis of XTP and TCP/IP over the BERKOM broadband ISDN network**

C Fan, T Luckenbach, X Xu - INFOCOM'93. Proceedings. Twelfth Annual Joint Conference of ... , 1993 - [ieeexplore.ieee.org](#)

Page 1 1154 9d.3.1 0743-166XJ93 \$03.00 at 1993 IEEE Performance Comparison and Analysis

of XTP and **TCP/IP** over the BERKOM Broadband ISDN Network Changpeng Fan ...

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**[PS] IMPROVING THE PERFORMANCE OF TCP APPLICATIONS USING NETWORK-ASSISTED MECHANISMS - all 2 versions »**

WK Noureddine - 2002 - [mmnetworks.stanford.edu](#)

... 35 1.7 Prior Work on Supporting **TCP** Applications . . . . 43 2.1.1 **Process-to-Process** Reliable Data Delivery . . . . 56 2.3.3 **Retransmission** of Lost Data . . .

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**Wide area traffic: the failure of Poisson modeling - all 77 versions »**

V Paxson, S Floyd - Networking, IEEE/ACM Transactions on, 1995 - [ieeexplore.ieee.org](#)

... **TCP CONNECTION INTERARRIVALS** This section examines the connection start times for ...

FTP session arrivals, within one-hour intervals the arrival **process** can be ...

[Cited by 2142](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

The design and tuning of a transport protocol for local areanetworks

ST Chanson, K Ravindran, J Robinson - INFOCOM'88. Networks: Evolution or Revolution? Proceedings. ..., 1988 - [ieeexplore.ieee.org](#)

... which minimizes the time that a transmitting **process** will be ... reason for using byte level sequencing in **TCP** is that it makes the **coalescing** of fragmented ...

[Cited by 3](#) - [Related Articles](#) - [Web Search](#)

System and method for improving backup performance of media and dynamic ready to transfer control ...

P Sarkar, K Voruganti - 2003 - [freepatentsonline.com](#)

... 2 is a **process** flowchart that illustrates the asymmetric ... The **coalescing** of SCSI responses helps to reduce the number of explicit **TCP** messages (carrying ...

[Cached](#) - [Web Search](#)

... Object-Oriented Framework for Experimenting with Alternative **Process** Architectures for Parallelizing ... - all 12 versions »

DC Schmidt - 1995 - [dre.vanderbilt.edu](#)

... the **TCP/IP** and the ISO OSI reference models) decompose naturally into a series of hierarchically-related tasks. A number of **process** architectures have been ...

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Design and implementation of efficient communication abstractions on the Virtual Interface ... - all 4 versions »

HV Shah, RS Madukkarumukumana - Software-Practice and Experience, 2001 - [doi.wiley.com](#)

... sockets and RPC with legacy network protocols (**TCP/IP**) on ... receiver wakes up due to the **completion** of a ... decentralized protocol processing on a per-**process** basis ...

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[PS] Design, implementation, and evaluation of a single-copy protocol stack - all 6 versions »

P Steenkiste - Software - Practice and Experience, 1998 - [wotan.liu.edu](#)

... upon **completion** so that the user **process** can be ... for small transfers, copying and potentially **coalescing** the data is ... the fields in the header (the **TCP** header and ...

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[PS] WebTP: A receiver-driven web transport protocol - all 5 versions »

R Gupta, M Chen, S McCanne, J Walrand - University of California at Berkeley Technical Report, 1998 - [cs.berkeley.edu](#)

... key strokes in a telnet session) by **coalescing** them into ... WebTP will perform fundamentally better than **TCP/HTTP** ... design of WebTP is an iterative **process** that will ...

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[BOOK] Pattern-oriented Software Architecture Patterns for Concurrent and Networked Objects, Volume 2 - all 2 versions »

DC Schmidt... - 2000 - [readol.net](#)

... 181 Asynchronous **Completion** Token ... The pattern description format used in this book helps to simplify this **process** by presenting solutions as series of concrete ...

[Cited by 153](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#) - [Library Search](#)

Configuration Support for Flexible, Function-Based Communication Systems - all 9 versions »

DC Schmidt, B Stiller, A Tantawy, T Suda, M ... - Proceedings of 18th Conference on Local Computer Networks, ..., 1993 - siesta.cs.wustl.edu

... **RETRANSMIT** ... **OPTION HANDLING** functions may be invoked simultaneously to update round-trip time estimates and **process** any options in the **TCP** segment header ...

[Cited by 2](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

[BOOK] Gigabit Nectar: Architecture and Performance - all 3 versions »

PA Steenkiste - 1995 - reports-archive.adm.cs.cmu.edu

... For all tests, the **TCP** window size is 512 KBytes. ... various background processes, including the idle **process**, and we ... see below) and the lack of **coalescing** in the ...

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System and method for universal networked device management

S Dean, A Millican, JD Fletcher, KD Stewart, C ... - 2003 - freepatentsonline.com

... IP network is dependent on the **TCP** congestion control ... create a **process**, terminate a **process**, perform a ... The configurable **coalescing** interval being, for example ...

[Cached](#) - [Web Search](#)

Introducing A Flexible Data Transport Protocol for Network Storage

Applications

PBT Khoo, WYH Wang - 10th NASA Mass Storage Systems and Technologies Conference/ ..., 2002 - deepwave.net

... During this **process**, the HyperSCSI client issues a ... like hardware accelerators, interrupt **coalescing**, checksum offloading ... size does not fluctuate like **TCP/IP**'s ...

[Cited by 7](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#) - [BL Direct](#)

Hardware-Assisted Networking Using Scheduled Transfer Protocol On Linux - all 3 versions »

P Pietikainen - University of Oulu, Oulu, Finland. Diploma thesis, 2001 - ee.oulu.fi

... compatibility problems, and in- terrupt **coalescing** can make ... placing the fragmentation and defragmentation **process** in the ... this, IP fragments and **TCP** segmentation ...

[Cited by 4](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

Transferring data such as files

M Veeraraghavan, TC Moors - 2003 - freepatentsonline.com

... 620) for the transfer (eg a deadline for **completion**). ... the present invention isn't a normal **TCP** application, in ... expects to contribute to the **process** of reliable ...

[Cached](#) - [Web Search](#)

Experiments with delivery of HDTV over IP networks - all 17 versions »

CS Perkins, L Gharai, T Lehman, A Mankin - Proceedings of the 12th International Packet Video Workshop, 2002 - 128.9.176.20

... able to record a 702 Mbps **TCP** stream. ... the receiver is not able to **process** packets continually ... gigabit Ethernet driver performs interrupt **coalescing** and checksum ...

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INSTANTANEOUS OFFLOADING OF WEB SERVER LOAD - all 2 versions »

VV Panteleenko - 2002 - nd.edu

... is performed in a **process** context instead ... **TCP** acknowledgement processing, partial **TCP** connection management ... as checksum computation and interrupt **coalescing**. ...

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[BOOK] Sizing and Tuning GPFS - all 6 versions »

M Barrios, International Business Machines ... - 1999 - e-techservices.com

... He has experience in designing, implementing, and tuning **TCP/IP**, **ATM LANE**, **Ethernet**, and **ATM networks**, and over twelve years of programming with numerous ...

[Cited by 2](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#) - [Library Search](#)

Achieving Gigabit Performance on Programmable Ethernet Network Interface Cards

BS IT - 2001 - cs.um.edu.mt

... ing two new techniques, packet fragmentation and packet **coalescing**, for the ... However, while the **TCP/IP** and ... **process** to be aware of such facilities and make use ...

[Related Articles](#) - [View as HTML](#) - [Web Search](#)

Capturing Network Traffic with a MAGNeT

J Hay, W Feng, M Gardner - Proceedings of the 5th Annual Linux Showcase and Conference ( ... , 2001 - public.lanl.gov

... s transitions between the application, **TCP**, and **IP** ... This **process**, being the lowest priority task in the sys ... Ethernet cards perform interrupt **coalescing** by default ...

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[PS] THE FLUKE DEVICE DRIVER FRAMEWORK - all 4 versions »

KT Van Maren - 1999 - cs.utah.edu

... atomic primitives. Traditional Unix kernels **process** system calls serially either to **completion** or until the system call blocks. A ...

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[BOOK] Scalable Multimedia Communication with Internet Multicast, Lightweight Sessions, and the MBone - all 8 versions »

SR McCanne - 1998 - eecs.berkeley.edu

... mented protocol changes, and fed back implementation experience to the design **process**.

...

By **coalescing** control messages in this fashion, the control traffic load ...

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[BOOK] Zero-copy Strategies for Distributed CORBA Objects in Clusters of PCs - all 6 versions »

CA Kurmann - 2003 - people.inf.ethz.ch

... 4.3.8 Interrupt **Coalescing** and Adaptive Latency Optimization . ... that allows an effective development **process** resulting in ... copies in a stan- dard **TCP/IP** protocol ...

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[BOOK] Optimizing Nfs Performance: Tuning and Troubleshooting NFS on HP-UX Systems - all 3 versions »

D Oiker, D Oiker - 2002 - books.google.com

... 148 6.3.4 Which Client-side **Process** Is Holding the Lock? ... Figure 5.7 rpcinfo "pinging" rpc.mountd via **TCP** 131 ... Figure 8.7 CacheFS Allocation Map Slot **Coalescing** ...

[Web Search](#) - [Library Search](#)

Final Report for the 10 to 100 Gigabit/Second Networking Laboratory Directed Research and ... - all 5 versions »

EL WITZKE, LG PIERSON, TD TARMAN, LB DEAN, PJ ... - 2001., 2001 - infoserve.sandia.gov

... Therefore, mechanisms that support interrupt **coalescing** provide this feature ... and I/O (eg, to disks, **TCP/IP** networks ... does not require the receive **process** to poll ...

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[Efficient information access for wireless computers - all 5 versions »](#)

S Wachsberg - Master's thesis, Dept. of Computer Science, University of ..., 1996 - styx.uwaterloo.ca

... Third, it resets the **retransmission** timer to a back-o ... protected from the erratic behavior of **TCP** over the ... Furthermore, by **coalescing** small packets at the proxy ...

[Cited by 1](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

[Evaluation of congestion detection mechanisms for InfiniBand switches - all 9 versions »](#)

JR Santos, Y Turner, G Janakiraman - Global Telecommunications Conference, 2002.

GLOBECOM'02. ..., 2002 - [ieeexplore.ieee.org](#)

... to avoid long lateixies for packet **retransmission** and the cost ... such BS hetcmgencous lib, ACK **coalescing**, variable packet ... is exempli- fied best by **TCP**, in which ...

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[Improving Networking Server Performance with Programmable Network Interfaces - all 8 versions »](#)

HY Kim - 2003 - [cs.rice.edu](#)

... Execution time of Send Data Ready and Receive **Complete** . . . . and computation power to offload network protocol **process**- ... as **TCP/IP** from the host processor to the ...

[Cited by 4](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

[Performance of a High-Level Parallel Language on a High-Speed Network - all 5 versions »](#)

HE Bal, R Bhoedjang, RFH Hofman, CJH Jacobs, K ... - Journal of Parallel and Distributed Computing, 1997 - [cs.cornell.edu](#)

... the handler thread runs to **completion** without blocking ... some local Orca **process** is currently also executing ... locks), message headers (by **coalescing** headers from ...

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[A Survey of Event Filtering Mechanisms for Dynamic Multi-Point Applications - all 7 versions »](#)

ES Al-Shaer, DC Schmidt - 1996 - [cse.wustl.edu](#)

... by nature, no agent has **complete** knowledge of ... tech- nique, the tree parsing **process** terminates with ... specific applications (like demultiplexing **TCP/IP** packets). ...

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[\[book\] Interactive Distributed Multimedia Systems and Telecommunication Services: 7th International ... - all 2 versions »](#)

H Scholten - 2000 - [books.google.com](#)

... For example, mobile users may encounter a **complete** different wireless communication ...

|-

The **TCP**-friendly rate ... The parameters of the loss **process** on the network ...

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[Mobility management utilizing active address propagation - all 3 versions »](#)

P Agrawal, JC Chen - US Patent 6,628,943, 2003 - Google Patents

... Active packets are utilized by a mobile terminal in a wireless network to set-up a wireless call via a signaling **process**, and for mobility management via a ...

[Cited by 9](#) - [Related Articles](#) - [Web Search](#)

[The Exokernel Operating System Architecture - all 13 versions »](#)

[DR Engler - 1998 - cs.biu.ac.il](#)

... Cheetah/Xok represents the Cheetah HTTP server, which exploits the **TCP** and file system ... time of each experiment, Max is the longest runtime of any **process** in a ...

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### [Direct Deposit—When Message Passing meets Shared Memory - all 2 versions »](#)

[TM Stricker - 2000 - reports-archive.adm.cs.cmu.edu](#)

... 62 5.1 Potential copies of data elements as they occur in traditional message passing (eg PVM) due to **coalescing** of non-contiguous data transfers, protection ...

[Cited by 2](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

### [Scaling Issues in the Design and Implementation of the Tenet RCAP2 Signaling Protocol - all 8 versions »](#)

[W Heffner - INTERNATIONAL COMPUTER SCIENCE INSTITUTE-PUBLICATIONS-TR, 1995 - http.icsi.berkeley.edu](#)

... Given a successful **completion** of the forward pass, the ... in Section 3.1.1, although the establishment **process** must be ... non-real-time protocols such as **TCP** and **UDP** ...

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### [Network Virtual Memory](#)

[JS Ong - 2003 - cs.ubc.ca](#)

... an interrupt is often unfairly accounted to the unfortunate **process** that is ... The **completion** of the receive operation indicates that the data has arrived in the ...

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### [AN ARCHITECTURE FOR CONCURRENT, PEER-TO-PEER COMPONENTS - all 2 versions »](#)

[K Chiu - 2001 - cs.indiana.edu](#)

... She builds a **complete** application from various components. ... ules on different machines communicate via **TCP/IP** ... can run in the same **process** as the kernel, reducing ...

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### [TOPOLOGY AWARE ESTIMATION METHODS FOR INTERNET TRAFFIC CHARACTERISTICS - all 2 versions »](#)

[JA Gast - 2003 - cs.wisc.edu](#)

... 99 4.4 **Coalescing** Traffic into Minimal Unique Set ... improves on prior topologies by being more **complete** and ... that the suppliers are **TCP** (or **TCP-friendly**) sources ...

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### [Design and Evaluation of Network Interfaces for System Area Networks - all 7 versions »](#)

[SS Mukherjee - 1998 - cs.wisc.edu](#)

... UW-Madison provided me with tools I needed to **complete** this ... and one-size-fits-all protocols (eg, **TCP/IP** ... to the operating system from a user **process** can require ...

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### [Functionally Homogeneous Clustering: a Framework for Building Scalable Data-intensive Internet ... - all 4 versions »](#)

[Y Saito - 2001 - hpl.hp.com](#)

... Yasushi Saito and have found that it is **complete** and satisfactory in all respects, and that any and all revisions required by the final ...

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[TheNUMachineMultiprocessor: Design and Analysis - all 2 versions »](#)

R Grindley - 1999 - citeseer.csail.mit.edu

... This also greatly simplifies the debugging **process**. ... con- trol of their jobs, not knowing how many hours or days later they could expect **completion** and ...

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coalescing tcp process completion re|

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## **BIBLIOGRAPHIC SEARCH:**

? b 2, 6, 8, 34, 35, 65, 94, 95, 99, 144, 434, 583, 603, 483

>>>W: 94 does not exist

1 of the specified files is not available

[File 2] **INSPEC** 1898-2007/May W2

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[File 6] **NTIS** 1964-2007/May W3

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[File 8] **Ei Compendex(R)** 1884-2007/May W2

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[File 34] **SciSearch(R) Cited Ref Sci** 1990-2007/May W3

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[File 35] **Dissertation Abs Online** 1861-2007/Apr

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[File 65] **Inside Conferences** 1993-2007/May 21

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[File 95] **TEME-Technology & Management** 1989-2007/May W3

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[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2007/Apr

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[File 144] **Pascal** 1973-2007/May W2

(c) 2007 INIST/CNRS. All rights reserved.

[File 434] **SciSearch(R) Cited Ref Sci** 1974-1989/Dec

(c) 2006 The Thomson Corp. All rights reserved.

[File 583] **Gale Group Globalbase(TM)** 1986-2002/Dec 13

(c) 2002 The Gale Group. All rights reserved.

*\*File 583: This file is no longer updating as of 12-13-2002.*

[File 603] **Newspaper Abstracts** 1984-1988

(c) 2001 ProQuest Info&Learning. All rights reserved.

*\*File 603: This is a closed file.*

[File 483] **Newspaper Abs Daily** 1986-2007/May 22

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? s complet????(2w)process????

Processing

2324940 COMPLET????

9158810 PROCESS????

S1 13254 S COMPLET????(2W) PROCESS????

? S TCP

S2 43672 S TCP

? s coalesc????(2w)list????

69215 COALESC????

738179 LIST????

S3 5 S COALESC????(2W)LIST????

? s re(2w)transmit?????

727311 RE

541398 TRANSMIT?????

S4 333 S RE(2W)TRANSMIT?????

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or undefined in one or more files.

1 AU=BIRAN, GIORA

1 AU=BIRAN, GIORA

19 AU=BIRAN G?

10 AU=BIRAN, G?

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S2	43672	S TCP
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S5	29	AU=(BIRAN, GIORA OR BIRAN, GIORA OR BIRAN G? OR BIRAN, G?) FROM 2, 6, 8, 34, 35, 65, 95, 99, 144, 434, 583, 603, 483
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S4	333	S RE (2W) TRANSMIT?????

S5 29 AU=(BIRAN, GIORA OR BIRAN, GIORA OR BIRAN G? OR BIRAN, G?) FROM 2, 6, 8, 34, 35, 65, 95, 99, 144, 434, 583, 603, 483

S6 0 S S1 AND S2 AND S3 AND S4 AND S5

S7 0 S S1 AND S2 AND S3 AND S4

S8 0 S S1 AND S2 AND S4 AND S5

S9 0 S S1 AND S2 AND S4

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7988394 PY>2004

S11 20 S S5 NOT PY>2004

? save temp sahmed01

Temp SearchSave "SAHMED02" stored

? type s11/3,k/all

11/3,K/1 (Item 1 from file: 2)

INSPEC

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07496040 INSPEC Abstract Number: B2000-03-1265F-038, C2000-03-7410D-141

**Title: A methodology for the verification of a "system on chip"**

**Author** Geist, D.; Biran, G.; Arons, T.; Slavkin, M.; Nustov, Y.; Farkas, M. ; Holtz, K.; Long, A.; King, D.; Barret, S.

**Author Affiliation:** IBM Haifa Res. Lab., Israel

**Conference Title:** Proceedings 1999 Design Automation Conference (Cat. No. 99CH36361) p. 574-9

**Publisher:** IEEE , Piscataway, NJ, USA

**Publication Date:** 1999 **Country of Publication:** USA xxxii+1003 pp.

**ISBN:** 1 58113 092 9 **Material Identity Number:** XX-1999-01527

**U.S. Copyright Clearance Center Code:** 1 58113 092 9/99/0006..\$5.00

**Conference Title:** Proceedings 1999 Design Automation Conference

**Conference Sponsor:** ACM/SIGDA; IEEE Circuits & Syst. Soc.; EDA Consortium

**Conference Date:** 21-25 June 1999 **Conference Location:** New Orleans, LA, USA

**Language:** English

**Subfile:** B C

Copyright 2000, IEE



**Author** Geist, D.; **Biran, G.**; Arons, T.; Slavkin, M.; Nustov, Y.; Farkas, M. ; Holtz, K.; Long, A.; King, D...

Fulltext available through: USPTO Full Text Retrieval Options

INSPEC

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06461213 **INSPEC Abstract Number:** B9702-6210-007

**Title:** Network operators: the gap is closing [frame relay services]

**Author** Biran, G.; Seidner, I.

**Author Affiliation:** RAD Data Commun., Tel Aviv, Israel

**Journal:** NTZ vol.49, no.11 p. 14-17

**Publisher:** VDE-Verlag ,

**Publication Date:** 1996 **Country of Publication:** Germany

**CODEN:** NNTZDZ **ISSN:** 0027-707X

**SICI:** 0027-707X(1996)49:11L.14:NOCF;1-V

**Material Identity Number:** K863-96012

**Language:** German

**Subfile:** B

Copyright 1997, IEE

**Author** Biran, G.; Seidner, I.

Fulltext available through: USPTO Full Text Retrieval Options

INSPEC

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06339040 **INSPEC Abstract Number:** B9609-6210-010

**Title:** Carriers and voice over frame relay: the test and see approach

**Author** Biran, G.

**Journal:** Telecommunications (International Edition) vol.30, no.5 p. 103-4, 106

**Publisher:** Horizon House Publications ,

**Publication Date:** May 1996 **Country of Publication:** USA

**CODEN:** TLCOAY **ISSN:** 0040-2494

**SICI:** 0040-2494(199605)30:5L.103:CVOF;1-R

**Material Identity Number:** L873-96010

**Language:** English

**Subfile:** B

Copyright 1996, IEE

**Author** Biran, G.

Fulltext available through: USPTO Full Text Retrieval Options

INSPEC

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04490699 **INSPEC Abstract Number:** A89133244

**Title:** Basis set quality versus size. II. Approximate GTO wave functions for second row transition metal atoms

**Author** Faegri, K., Jr.; Biran, G.

**Author Affiliation:** Dept. of Chem., Oslo Univ., Norway

**Journal:** Journal of Computational Chemistry vol.10, no.4 p. 495-502

**Publication Date:** June 1989 **Country of Publication:** USA

**CODEN:** JCCHDD **ISSN:** 0192-8651

**U.S. Copyright Clearance Center Code:** 0192-8651/89/040495-08\$04.00

**Language:** English

**Subfile:** A

**Author** Faegri, K., Jr.; Biran, G.

Fulltext available through: [ACM - Association for Computing Machinery](#) [USPTO Full Text Retrieval Options](#)  
Ei Compendex(R)

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08367238 E.I. No: EIP99094795267

**Title:** Methodology for the verification of a 'system on chip'

**Author:** Geist, Daniel; Biran, Giora; Arons, Tamara; Slavkin, Michael; Nustov, Yvgeny; Farkas, Monica; Holtz, Karen; Long, Andy; King, Dave; Barret, Steve

**Corporate Source:** IBM Haifa Research Lab, Haifa, Isr

**Conference Title:** Proceedings of the 1999 36th Annual Design Automation Conference (DAC)

**Conference Location:** New Orleans, LA, USA **Conference Date:** 19990621-19990625

**E.I. Conference No.:** 55645

**Source:** Proceedings - Design Automation Conference 1999. p 574-579

**Publication Year:** 1999

**CODEN:** PDAWDJ **ISSN:** 0738-100X

**Language:** English

**Author:** Geist, Daniel; Biran, Giora; Arons, Tamara; Slavkin, Michael; Nustov, Yvgeny; Farkas, Monica; Holtz, Karen; Long, Andy; King, Dave...

Fulltext available through: [ScienceDirect](#)

Ei Compendex(R)

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07443414 E.I. No: EIP96073245114

**Title:** Carriers and voice over frame relay: the test and see approach

**Author:** Biran, Gil

**Corporate Source:** RAD Data Communications

**Source:** Telecommunications (International Edition) v 30 n 5 May 1996. 3pp

**Publication Year:** 1996

**CODEN:** TLCOAY **ISSN:** 0040-2494

**Language:** English

**Author:** Biran, Gil

Fulltext available through: [USPTO Full Text Retrieval Options](#)

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13639110 **Genuine Article#:** 855YM **No. References:** 0

**Is chronic endometritis a causative factor for repeated implantation failure in IVF-ET?**

**Author:** Biran G; Weissman A; Farhi J; Avinoah I; Shahmorow M; Levran D

**Corporate Source:** Wolfson Med Ctr,Dept Obstet & Gynecol, IVF Unit,Holon//Israel/; Inst Pathol,Med Ctr,Holon//Israel/; Wolfson Med Ctr,Inst Pathol,Holon//Israel/; Wolfson Med Ctr,Dept Obstet Gynecol, IVF Unit,Holon//Israel/

**Journal:** FERTILITY AND STERILITY , 2004 , V 82 , 2 ( SEP ) , P S128-S128

**ISSN:** 0015-0282 **Publication date:** 20040900

**Publisher:** ELSEVIER SCIENCE INC , 360 PARK AVE SOUTH, NEW YORK, NY 10010-1710 USA

**Language:** English **Document Type:** MEETING ABSTRACT

**Author:** Biran G; Weissman A; Farhi J; Avinoah I; Shahmorow M; Levran D

Fulltext available through: [USPTO Full Text Retrieval Options](#)

SciSearch(R) Cited Ref Sci

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13639107 **Genuine Article#:** 855YM **No. References:** 0

**The prognostic significance of failure to produce blastocysts in patients with repeated implantation failure.**

**Author:** Weissman A; Nahum H; Biran G; Glezerman M; Levran D

**Corporate Source:** Wolfson Med Ctr,Holon//Israel/

**Journal:** FERTILITY AND STERILITY , 2004 , V 82 , 2 ( SEP ) , P S127-S127

**ISSN:** 0015-0282 **Publication date:** 20040900

**Publisher:** ELSEVIER SCIENCE INC , 360 PARK AVE SOUTH, NEW YORK, NY 10010-1710 USA

**Language:** English **Document Type:** MEETING ABSTRACT

**Author:** Weissman A; Nahum H; Biran G; Glezerman M; Levran D

Fulltext available through: [USPTO Full Text Retrieval Options](#)

SciSearch(R) Cited Ref Sci

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12287245 **Genuine Article#:** 727RM **No. References:** 0

**A computerized model for prediction of repeated implantation failure in IVF-ET.**

**Author:** Levran D; Biran G; Farhi J; Nahum H; Glezerman M; Weissman A

**Corporate Source:** Wolfson Med Ctr,IVF Unit,Holon//Israel/

**Journal:** FERTILITY AND STERILITY , 2003 , V 80 , 3 ( SEP ) , P S160-S160

**ISSN:** 0015-0282 **Publication date:** 20030900

**Publisher:** ELSEVIER SCIENCE INC , 360 PARK AVE SOUTH, NEW YORK, NY 10010-1710 USA

**Language:** English **Document Type:** MEETING ABSTRACT

**Author:** Levran D; Biran G; Farhi J; Nahum H; Glezerman M; Weissman A

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10555978 **Genuine Article#:** 542AA **No. References:** 32

**Conversion of laparoscopy to laparotomy due to adenxal malignancy**

**Author:** Biran G; Golan A; Sagiv R; Glezerman M; Menczer J (REPRINT)

**Corporate Source:** E Wolfson Med Ctr,Dept Obstet & Gynecol, Gynecol Oncol Unit,Holon//Israel/ (REPRINT); E Wolfson Med Ctr,Dept Obstet & Gynecol, Gynecol Oncol Unit,Holon//Israel/; Tel Aviv Univ,Sackler Fac Med,

Edith Wolfson Med Ctr,IL-69978 Tel Aviv//Israel/

**Journal:** EUROPEAN JOURNAL OF GYNAECOLOGICAL ONCOLOGY , 2002 , V 23 , N2 , P 157-160

**ISSN:** 0392-2936 **Publication date:** 20020000

**Publisher:** I R O G CANADA, INC , 4900 COTE ST-LUC, APT#212, MONTREAL, QUEBEC H3W 2H3, CANADA

**Language:** English **Document Type:** ARTICLE (ABSTRACT AVAILABLE )

**Author:** Biran G; Golan A; Sagiv R; Glezerman M; Menczer J (REPRINT)

Fulltext available through: [USPTO Full Text Retrieval Options](#)

SciSearch(R) Cited Ref Sci

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04554030 **Genuine Article#:** TR334 **No. References:** 48

**CONGENITAL CYTOMEGALOVIRUS-INFECTION - A LONG-STANDING PROBLEM STILL SEEKING A SOLUTION**

**Author:** HAGAY ZJ; BIRAN G; ORNOY A; REECE EA

**Corporate Source:** KAPLAN HOSP,DEPT OBSTET & GYNECOL/IL-76100 REHOVOT//ISRAEL/; HEBREW UNIV JERUSALEM,HADASSAH MED SCH,JERUSALEM INST CHILD DEV/IL-91010

JERUSALEM//ISRAEL/; HEBREW UNIV JERUSALEM,HADASSAH MED SCH,LAB TERATOL/IL-91010

JERUSALEM//ISRAEL/; TEMPLE UNIV,SCH MED/PHILADELPHIA//PA/19122

**Journal:** AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY , 1996 , V 174 , N1 ( JAN ) , P 241-245

**ISSN:** 0002-9378

**Language:** ENGLISH **Document Type:** ARTICLE ( Abstract Available )

**Author:** HAGAY ZJ; BIRAN G; ORNOY A; REECE EA

Fulltext available through: [USPTO Full Text Retrieval Options](#)

SciSearch(R) Cited Ref Sci

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02983300 **Genuine Article#:** MU478 **No. References:** 28

**PREMATURE DELIVERY OF SMALL VERSUS APPROPRIATE-FOR-GESTATIONAL-AGE NEONATES - A COMPARATIVE-STUDY OF MATERNAL CHARACTERISTICS**

**Author:** BIRAN G; MAZOR M; SHOHAM I; LEIBERMAN JR; GLEZERMAN M

**Corporate Source:** BEN GURION UNIV NEGEV,SOROKA MED CTR KUPAT HOLIM,FAC HLTH SCI,DEPT OBSTET & GYNECOL,POB 151/IL-84101 BEER SHEVA//ISRAEL/; BEN GURION UNIV NEGEV,SOROKA MED CTR KUPAT HOLIM,FAC HLTH SCI,DEPT OBSTET & GYNECOL/IL-84101 BEER SHEVA//ISRAEL/; BEN GURION UNIV NEGEV,SOROKA MED CTR KUPAT HOLIM,FAC HLTH SCI,EPIDEMIOLOG UNIT/BEER SHEVA//ISRAEL/

**Journal:** JOURNAL OF REPRODUCTIVE MEDICINE , 1994 , V 39 , N1 ( JAN ) , P 39-44

**ISSN:** 0024-7758

**Language:** ENGLISH **Document Type:** ARTICLE ( Abstract Available )

**Author:** BIRAN G; MAZOR M; SHOHAM I; LEIBERMAN JR; GLEZERMAN M

Inside Conferences

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04794033 **Inside Conference Item ID:** CN050027296

**A Computerized Model for Prediction of Repeated Implantation Failure in IVF-ET**

Levrn, D.; Biran, G.; Farhi, J.; Nahum, H.; Glezerman, M.; Weissman, A.

**Conference:** American Society for Reproductive Medicine; ASRM 2003 - Annual meeting; 59th  
FERTILITY AND STERILITY -INTERNATIONAL EDITION- , 2003; VOL 80; SUPPL 3 P: P-117  
American Society for Reproductive Medicine, 2003

**ISSN:** 0015-0282

**Language:** English **Document Type:** Conference Preprinted abstracts and programme

**Sponsor:** American Society for Reproductive Medicine

**Location:** San Antonio, TX

2003; Oct ( 200310 ) ( 200310 ) Levran, D.; **Biran, G.**; Farhi, J.; Nahum, H.; Glezerman, M.; Weissman, A.

Inside Conferences

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02980739 **Inside Conference Item ID:** CN031580288

**A Methodology for the Verification of a "System on Chip"**

Geist, D.; **Biran, G.**; Arons, T.; Slavkin, M.

**Conference:** Design automation conference - 36th

DESIGN AUTOMATION CONFERENCE , 1999; ISSUE 36 P: 574-579

IEEE, 1999

**ISSN:** 0738-100X **ISBN:** 0780355601; 078035561X; 1581130929

**Language:** English **Document Type:** Conference Preprinted papers

**Location:** New Orleans, LA

**Date:** Jun 1999 ( 199906 ) ( 199906 )

**Note:**

IEEE cat no 99CH36361 Geist, D.; **Biran, G.**; Arons, T.; Slavkin, M.

TEME-Technology & Management

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01049572 E96110702247

**Die Luecke schliesst sich**

( ATM and frame relay services: The gap between America and Europe could be closed )

**Biran, G.**; Seidner, I

RAD Data Communications

ntz Telekommunikation und Informationstechnik, v49, n11, pp14-17 , 1996

**Document type:** journal article **Language:** German

**Record type:** Abstract

**Biran, G.**; Seidner, I

Pascal

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12621181 PASCAL No.: 96-0313511

Carriers and voice over frame relay: the test and see approach

**BIRAN G**

RAD Data Communications, Unknown

Journal: Telecommunications (International Edition)

, 1996, 30 (5)

) 3p  
Language: English

**BIRAN G**

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(c) 2007 INIST/CNRS. All rights reserved.11/3,K/17 (Item 2 from file: 144)

12475660 PASCAL No.: 96-0138844

Congenital cytomegalovirus infection : a long-standing problem still seeking a solution

HAGAY Z J; **BIRAN G**; ORNOY A; REECE E A  
Kaplan hosp., dep. obstetrics and gynecology, Rehovot, Israel  
Journal: American journal of obstetrics and gynecology  
, 1996, 174 (1 p.1  
) 241-245  
Language: English

HAGAY Z J; **BIRAN G**; ORNOY A; REECE E A

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11410525 PASCAL No.: 94-0241224

Premature delivery of small versus appropriate-for-gestational-age neonates : a comparative study of maternal characteristics

**BIRAN G**; MAZOR M; ILANA SHOHAM; LEIBERMAN J R;  
GLEZERMAN M  
Ben-Gurion univ. Negev, fac. health sci., epidemiology uit, Beer-Sheva, Israel  
Journal: Journal of reproductive medicine,  
1994, 39 (1)  
39-44  
Language: English

**BIRAN G**; MAZOR M; ILANA SHOHAM; LEIBERMAN J R;  
GLEZERMAN M

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09310780 PASCAL No.: 91-0101154

Basis set quality versus size. II: Approximate GTO wave functions for second row transition metal atoms

FAEGRI K JR; **BIRAN G**  
Univ. Oslo, dep. chemistry, Oslo 0315, Norway  
Journal: Journal of computational chemistry,  
1989, 10 (4)  
495-502  
Language: English

FAEGRI K JR; **BIRAN G**

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09505296 **Genuine Article#:** U8039 **No. References:** 34

**BASIS SET QUALITY VERSUS SIZE .2. APPROXIMATE GTO WAVE-FUNCTIONS FOR 2ND ROW  
TRANSITION-METAL ATOMS**

**Author:** FAEGRI K; **BIRAN G**

**Corporate Source:** UNIV OSLO,DEPT CHEM,POB 1033/N-0315 OSLO 3//NORWAY/

**Journal:** JOURNAL OF COMPUTATIONAL CHEMISTRY , 1989 , V 10 , N4 , P 495-502

**Language:** ENGLISH **Document Type:** ARTICLE

**Author:** FAEGRI K; **BIRAN G**

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S4	333	S RE(2W)TRANSMIT?????
S5	29	AU=(BIRAN, GIORA OR BIRAN, GIORA OR BIRAN G? OR BIRAN, G?) FROM 2, 6, 8, 34, 35, 65, 95, 99, 144, 434, 583, 603, 483
S6	0	S S1 AND S2 AND S3 AND S4 AND S5
S7	0	S S1 AND S2 AND S3 AND S4
S8	0	S S1 AND S2 AND S4 AND S5
S9	0	S S1 AND S2 AND S4
S10	0	S S1 AND S3
S11	20	S S5 NOT PY>2004

**EUROPEON AND WIPO FULL TEXT SEARCH:**

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[File 348] **EUROPEAN PATENTS** 1978-2007/ 200719

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*\*File 348: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.*

[File 349] **PCT FULLTEXT** 1979-2007/UB=20070518UT=20070510

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*\*File 349: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.*

? EXS SAHMED02

EXS: s complet????(2w)process????

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S2 32387 S TCP

EXS: s coalesc????(2w)list????

17684 COALESC????

426837 LIST????

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489957 RE

555004 TRANSMIT?????

S4 5639 S RE(2W)TRANSMIT?????

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26 AU=BIRAN G?

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32387    S2

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S9           108    S S1 AND S2 AND S4

EXS: s s1 and s3

36424    S1

10    S3

S10           1    S S1 AND S3

EXS: s s5 not py>2004

26    S5

938957    PY>2004

S11           8    S S5 NOT PY>2004

? d s

Set	Items	Description
S1	36424	COMPLET????(2W)PROCESS???? FROM 348, 349
S2	32387	TCP FROM 348, 349
S3	10	COALESC????(2W)LIST???? FROM 348, 349
S4	5639	RE(2W)TRANSMIT????? FROM 348, 349
S5	26	AU=(BIRAN, GIORA OR BIRAN, GIORA OR BIRAN G? OR BIRAN, G?) FROM 348, 349

S6 0 S1 AND S2 AND S3 AND S4 AND S5 FROM 348, 349  
S7 0 S1 AND S2 AND S3 AND S4 FROM 348, 349  
S8 0 S1 AND S2 AND S4 AND S5 FROM 348, 349  
S9 108 S1 AND S2 AND S4 FROM 348, 349  
S10 1 S1 AND S3 FROM 348, 349  
S11 8 S5 NOT PY>2004 FROM 348, 349

? type s10/3,k/all

10/3K/1 (Item 1 from file: 349)

PCT FULLTEXT

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01262535

**COMPLETION COALESCINE BY TCP RECEIVER**

**COALESCENCE FINALE PAR UN RECEPTEUR TCP**

**Patent Applicant/Patent Assignee:**

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US; US (Residence); US (Nationality)  
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	Country	Number	Kind	Date
Patent	WO	200567561	A2-A3	20050728
Application	WO	2005US152		20050105

Priorities	US	2004752731	20040107
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**Designated States:** (All protection types applied unless otherwise stated - for applications 2004+)

AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG;  
BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU;  
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#### English Abstract:

...a TCP/IP offload engine (TOE)). The method comprises: processing inbound TCP segments; and performing **completion processing** of the inbound TCP segments.

#### Detailed Description:

...two (or more) received TCP segments.

[0004] Additional TCP ACK processing overhead arises from the **completion processing** c)f each received TCP ACK segment or data segment carrying new TCP ACK information. As known in the art, such **completion processing** involves, for example, the reading and processing of a posted consumer request (e.g., descriptors...  
...processing resources and forces the logic processing of inbound TCP segments to wait for the **completion processing** of each received TCP ACK to finish, before processing the next TCP segment. Thus, the **completion processing** overhead comprises two parts: the overhead of the completion operation itself-, and the coupling of inbound TCP segment processing logic with **completion processing** logic.

[0005] There is a need, therefore, for a method, system, and computer program product for processing inbound TCP segments (including ACKS) independently from **completion processing**. This allows the processing of inbound

TCP segments to continue without waiting for the **completion processing** of each received TCP ACK to finish. Also, the delayed, separate **completion processing** allows the present invention to perform coalescing of ACKS (i.e., one completion operation may... ..of one completion operation per ACK). The same approach may also be applied to the **completion processing** of RDMA Read Requests.

## SUMMARY OF THE INVENTION

[0006] The present invention provides a method and system for processing inbound TCP segments (including ACKS) independently from **completion processing**. In particular, each received TCP ACK (dedicated or carried by a data segment) is not... ..immediately by inbound segment processing logic, but is instead scheduled for processing using a completion **coalescing list**. Scheduling a connection for **completion processing** is done by updating TCP ACK information in a connection context, and adding the connection context to the completion **coalescing list**.

[0007] A first aspect of the present invention is directed to a method for **completion processing**, comprising: **processing** inbound TCP segments; and performing **completion processing** of received TCP ACKS independently of the processing of the inbound TCP

3  
segments.

[0008] A second aspect of the present invention is directed to a system for **completion processing**, comprising: TCP logic for processing inbound TCP segments; and a system for performing **completion processing** of received TCP ACKS independently of the processing of the inbound TCP segments.

[0009] A... ..1 2] FIG. 1 illustrates a block diagram of a completion coalescing system for the **completion processing** of TCP ACKS in accordance with the present invention.

[00 1 3] FIG. 2 illustrates the structure of a completion **coalescing list** in accordance with the present invention.

[0014] FIGS. 3A-313 illustrate the addition of a completion context to the completion **coalescing list** in accordance with the present invention.

[001 5] FIG. 4 illustrates a block diagram of a completion coalescing system for the

4  
**completion processing** of TCP ACKS and remote data memory access (RDMA) Read Responses in accordance with the... ..system IO includes TCP logic 12, transmit/retransmit handler 14, completion handler 16, and completion **coalescing list** 18. In accordance with the present invention, the completion operation for each received TCP... ..processed immediately by TCP logic 12, but is instead scheduled for processing using a completion **coalescing list** 18. The TCP ACK, however, is processed immediately by TCP logic 12.

[0021] TCP logic... ..e., via a completion request 24) to completion handler 16, the present invention uses completion **coalescing list** 18. The completion information is passed via a connection context in completion **coalescing list** 18 (LastAckedSN is a field of the connection context which carries the most recently ACKed SN). The connection context itself is chained to completion **coalescing list** 18, but only if the connection does not have a pending completion request. If the connection is already waiting for completion handling in the completion **coalescing list** 18 (i.e., the connection already has a pending completion request), the information in the... ..Logic 20 (or handling/processing of received TCP segments) from the relatively slow, and bursty **completion process**.

[0022] Tx TCP logic 22 of TCP logic 12 decides what should be transmitted for... ..retransmit operation to the transmit/retransmit handler 14, which performs the requested operation.

[0023] Completion **coalescing list 18** is a list of connections, or more precisely, connection contexts. A connection context is... pointers, fields, bits,

6

flags, etc.) that stores data pertaining to a particular connection. Completion **coalescing list 18** is a unidirectional linked list implemented by chaining connection contexts using pointers inside the context. Completion **coalescing list 18** holds connection contexts corresponding to connections that have a pending completion request to handle... example, is one of the triggers that may lead to adding a connection context to completion **coalescing list 18** (i.e., a TCP ACK is a trigger for scheduling a connection context in completion **coalescing list 18** for completion handling by completion handler 16). Each connection may appear in completion **coalescing list 18** only once. If a connection context corresponding to a connection is already chained to completion **coalescing list 18**, the connection context is updated to carry the most recent information, and is kept in the same location in completion **coalescing list 18** where it was originally chained.

[0024] As illustrated in FIG. 2, completion **coalescing list 18** is implemented using a pointer 28 held in each connection context 30. To this... 32 which points, via a pointer 28, to the next connection context 30 in completion **coalescing list 18**. A connection is added to the tail 36 of completion **coalescing list 18** by a request (i.e., a completion request) from Rx TCP logic 20 of TCP logic 12, and removed from the head 34 of completion **coalescing list 18** by completion handler 16.

[0025] Referring again to FIG. 1, it should be noted... are normally not handled immediately, and are instead handled by completion handler 16 via completion **coalescing list 18**, there is a need to make sure that the given connection does not wait in completion **coalescing list 18** prior to completion handling by completion handler 16. To ensure that the completion operation... perform the completion operation as soon as possible for the given connection (i.e., completion **coalescing list 18** is bypassed).

Transmit/retransmit handler 14 subsequently waits for completion of this operation, and... e., pull) connection contexts 30 one-by-one from the head 34 (FIG. 2) of completion **coalescing list 18**, and uses completion information in each pulled connection context 30 to perform a completion... transmit/retransmit handler 14.

(0027) As detailed above, connection contexts 30 are chained in completion **coalescing list 18** using a pointer 28 held in field 32 of each connection context 30. To be more precise,

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connection contexts 30 are chained in completion **coalescing list 18** using a C6ntext[Ch#]::NextIn,4ckList field 32 in connection context 30.

[0028]... of the next connection context 30 in the chain of connection contexts 30 forming completion **coalescing list 18** (i.e., the C6ntext[Ch#]::NextIn,4ckList field 32 effectively provides a pointer 28 ... shown in a simplistic manner in FIGS. 3A and 3B. Specifically, in FIG. 3A, completion **coalescing list 18** is shown as including two connection contexts 301, 302 chained together, with the Context... pointing (pointer 281) to the last connection context (i.e., connection context 302) in completion **coalescing list 18**. When a new connection context 303 is added to the tail 36 of the... newly added connection context 303, which now is located at the tail 36 of completion **coalescing list 18**.

[0029] When a new TCP ACK arrives, Rx TCP logic 20 of TCP logic... 30 also holds a bit indicating whether or not the connection context has a valid **completion processing** request. This bit is provided in the C6ntext[Ch#]::C6mpletionReq field 40 of... 40. This bit also indicates whether connection context 30 has already been chained to completion **coalescing list 18** or not. If connection context 30 is already chained to completion **coalescing list 18** (i.e., C6ntext[Ch#]::C6mpletionReq is set), the update of C6ntext[Ch#]::LastAekedSN... CompletionReq is clear, the connection context 30 is added to the tail 36 of completion **coalescing list 18**, and the

C6ntext[Ch#]::NextIn, 4ckList field of the last connection context 30 in completion **coalescing list** 18 is updated to refer to the newly added connection context 30 (i.e., via... ..number of the next connection context 30 in the chain).

[0032] Completion requests in completion **coalescing list** 18 are served by completion handler 16. Completion handler 16 operates asynchronously (i.e., independently... ..0 from transmit/retransmit handler 14 and the Rx TCP logic 20. This allows the **completion processing** to be kept separate from the posted to transmit requests and inbound TCP traffic.

[0033] Completion handler 16 dequeues connection context 30 from the head 34 of completion **coalescing list** 18, and uses the Context[Ch#]::LastAckedSN field to perform **completion processing** in a manner known in the art. After processing the completion request, completion handler 16... ..Since the connection context 30 may have been updated with a new completion request during **completion processing**, completion handler 16 determines whether the C6ntext[Ch#]::LastAckedSN field is equal to the processed... ..j::LastAckedSN field is not equal to the processed LastAckedSN the completion handler 16 performs

**completion processing** using the updated LastAckedSN. This is one way to resolve the updating of the LastAckedSN during completion handling. Another way would place that connection back to the end of completion **coalescing list** 18, and wait for a later service cycle to handle its completion.

[0034] The use of a completion **coalescing list** 18 and completion handler 16 by completion coalescing system 10 reduces **completion processing** overhead when compared to prior art **completion processing** techniques. Although the processing of each completion request involves one or more descriptor read operations... ..of completion coalescing system 10 of the present invention nevertheless reduces the required number of **completion request processing** operations and

II

allows better utilization of the fetched descriptors. Therefore, in spite of... ..the present invention to continue to receive new TCP segments, regardless of how slow the **completion handling process** is.

[0035] Another improvement provided by completion coalescing system 10 of the present invention... ..priority of completion handling. Completion handling becomes a self-tuning mechanism.

more connections waiting for **completion processing**, more aggressive completion coalescing, less time and bandwidth consumed by **completion processing**.

[0036] The completion **coalescing list** presented above may be adapted to process completion of a pending RDMA Read Request upon... ..20 and Tx TCP logic 22), transmit/retransmit handler 14, completion handler 16, and completion **coalescing list** 18, which operate as described above with regard to the corresponding components of completion coalescing... ..of any data (e.g., a TCP segment).

[0039] Local RDMA operations are considered as **completed** when their **processing** is finished by the RDMA network interface card (NIC). Send and Write operations are considered... ..receives an RDMA Read Response 104 it posts a completion request 106 to the completion **coalescing list** 18.

Accordingly, completion handler 16 performs completion operations using both information from TCP ACKS, and received RDMA Read Responses, provided in the connection contexts 30 of completion **coalescing list** 18.

[0041 ] An approach similar to that described above with regard to the **completion processing** of received TCP

ACKS can be used for the **completion processing** of pending RDMA Read Requests upon delivery of inbound RDMA Read Responses. To this extent, connection contexts 30 corresponding to RDMA Read Requests are chained in completion **coalescing list**

14

18. To allow coalescing of completed RDMA Read Requests, the connection context 30... ..in connection context 30 accordingly. If a connection is not yet chained to the completion **coalescing list** 18, i.e., (Context[Ch#]::CompletedReadRequestNum was equal to zero, and Context[Ch#]::CompletionReq is clear), the context is chained to the completion **coalescing list** 18 by updating the Context[Ch#]::NextInAckList field 32 of the last connection context 30 in the completion **coalescing list** to point to the newly added connection context 30 (see, e.g., the process illustrated... ..3B). In addition, upon the chaining of newly added connection context 30 to the completion **coalescing list**, the Context[Ch#]::CompletionReq bit should be set as well.

[0043] Several operations require... ..may require prior handling of completion requests. An RDMA Read Request, for example, requires prior **completion processing** only if the Read Queue has no free place to put the request. In this... ..is done independently from the position of the completion context 30 in the completion **coalescing list** 18. After **completion processing**, the **processing** of the original request (retransmit, inbound RDMA Read Response) can be resumed.

[0044] Another completion... ..Queue. Due to coalescing of completion requests (e.g., received TCP ACKS) in the completion **coalescing list** 18, it might be case that the Read Queue is not cleaned up yet by the completion handler 16 (i.e. the completion request is still in the completion **coalescing list** 18), and in that case, RDMA logic 102 needs first to free some space in...

## Claims:

1 A method for **completion processing**, comprising:  
**processing** inbound TCP segments; and performing **completion processing** of received TCP ACKS independently of the processing of the inbound TCP segments.

2 The method of claim 1, wherein performing **completion processing** further comprises: scheduling **completion processing** of each received TCP ACK using a completion **coalescing list**.

3 The method of claim 2, further comprising:  
coalescing received TCP ACKS using the completion **coalescing list**.

4 The method of claim 2, further comprising:  
passing completion information corresponding to each received TCP ACK to a completion handler via the completion **coalescing list**. 18. The method of claim 4, wherein the completion information corresponding to each received TCP ACK is passed to the completion handler via a connection context in the completion **coalescing list**.

6 The method of claim 5, further comprising:  
chaining the connection context to the completion **coalescing list**.

7 The method of claim 6, wherein the completion context is only chained to the completion **coalescing list** if a connection corresponding to the connection context does not have a pending completion request... ..number (LastAckedSN).

10. The method of claim 4, further comprising: selectively bypassing the completion **coalescing list** and sending the completion information directly to the completion handler for **completion processing**. 19 11. The method of claim 10, wherein selectively bypassing the completion **coalescing list** is performed in response to a retransmit operation.

12 The method of claim 2, further... ..of an RDMA, Read Request upon reception of an RDMA Read Response using the completion **coalescing list**.

13 The method of claim 12, further comprising:  
chaining a connection context corresponding to the RDMA Read Request to the completion **coalescing list** .O

14 The method of claim 12, further comprising:  
selectively bypassing the completion **coalescing list** and sending the RDMA Read Request directly to the completion handler for **completion processing**.

15 The method of claim 14, wherein selectively bypassing the completion **coalescing list** is performed in response to a Read Queue not having sufficient free space to place... ..which when executed, performs the method set forth in claim 1.

20. A system for **completion processing**, comprising:TCP logic for processing inbound TCP segments; anda system for performing **completion processing** of received TCP ACKSindependently of the processing of the inbound TCP segments.

18 The system of claim 17, further comprising:  
a completion **coalescing list** for scheduling **completion processing** of each received TCP ACK.

19 The system of claim 18, wherein the completion **coalescing list** coalesces received TCP ACKS.

20 The system of claim 18, further comprising:  
a completion handler for **completion processing** of each received TCP ACK,wherein completion information corresponding to each received TCP ACK is passed to the completion handler via a connection context in a completion **coalescing list**.

21 The system of claim 20, wherein the TCP logic chains the connection context to the completion **coalescing list**.

21. The system of claim 21, wherein the TCP logic only chains the completion context to the completion **coalescing list** if a connection corresponding to the connection context does not have a pending completion request...  
...transmit/retransmit handler for sending the completion information directly to the completion handler for **completion processing**, thereby selectively bypassing the completion **coalescing list**.

26 The system of claim 25, wherein the completion information is sent directly to the completion handler for **completion processing** by the transmit/retransmit handler in response to a retransmit operation requested by the TCP... ..RDMA logic for handling received RDMA messages, and for scheduling an RDMA Read Request for **completion processing** by chaining a connection context corresponding to the RDMA Read Request to the completion **coalescing list**.

28 The system of claim 27, further comprising:  
a completion handler for **completion processing** of each RDMA Read Request, wherein completion information corresponding to each RDMA Read Request is passed to the completion handler via the connection context in the completion **coalescing list**.

29 The system of claim 28, wherein the RDMA logic is configured to selectively bypass the completion **coalescing list** and send the RDMA Read Request directly to the completion handler for **completion processing**.

30 The system of claim 29, wherein the completion **coalescing list** is selectively bypassed in response to a Read Queue not having sufficient free space to...

## **FULL TEXT SEARCH:**

? b 9,15,16,20,47,75,80,88,98,112,141,148,160,275,264,369,370,484,  
553,570,608,620,613,621,623,624,634,635,636,647,696,674,810,813,587

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? EXS SAHMED02

EXS: s complet????(2w)process????

Processing

Processing

Processing

Processing

15681789 COMPLET????

17007558 PROCESS????

S1 121913 S COMPLET????(2W) PROCESS????

EXS: S TCP

S2 221887 S TCP

EXS: s coalesc????(2w)list????

Processing

49089 COALESC????

12255625 LIST????

S3 20 S COALESC????(2W)LIST????

EXS: s re(2w)transmit?????

Processing

Processing

13033326 RE

1240759 TRANSMIT?????

S4 3658 S RE(2W)TRANSMIT?????

EXS: s au=(BIRAN, GIORA or BIRAN, GIORA or BIRAN G? or BIRAN, G?)

>>>W: One or more prefixes are unsupported

or undefined in one or more files.

0 AU=BIRAN, GIORA

0 AU=BIRAN, GIORA

0 AU=BIRAN G?

1 AU=BIRAN, G?

S5 1 S AU=(BIRAN, GIORA OR BIRAN, GIORA OR BIRAN G? OR BIRAN, G?)

EXS: s s1 and s2 and s3 and s4 and S5

121913 S1

221887 S2

20 S3

3658 S4

1 S5

S6 0 S S1 AND S2 AND S3 AND S4 AND S5

EXS: S S1 AND S2 AND S3 AND S4

121913 S1

221887 S2

20 S3

3658 S4

S7 0 S S1 AND S2 AND S3 AND S4

EXS: S S1 AND S2 AND S4 AND S5

121913 S1

221887 S2

3658 S4

1 S5

S8 0 S S1 AND S2 AND S4 AND S5

EXS: S S1 AND S2 AND S4

121913 S1

221887 S2

3658 S4

S9 2 S S1 AND S2 AND S4

EXS: s s1 and s3

121913 S1

20 S3

S10 0 S S1 AND S3

EXS: s s5 not py>2004

Processing

1 S5

28268155 PY>2004

S11 1 S S5 NOT PY>2004

? S S1 AND S2 AND S3 AND S4 AND S5

121913 S1

221887 S2

20 S3

3658 S4

1 S5

S12 0 S S1 AND S2 AND S3 AND S4 AND S5

? d s

Set . Items Description

S1 121913 COMPLET????(2W)PROCESS???? FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S2 221887 TCP FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S3 20 COALESC????(2W)LIST???? FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S4 3658 RE(2W)TRANSMIT????? FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S5 1 AU=(BIRAN, GIORA OR BIRAN, GIORA OR BIRAN G? OR BIRAN, G?) FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S6 0 S1 AND S2 AND S3 AND S4 AND S5 FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S7 0 S1 AND S2 AND S3 AND S4 FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S8 0 S1 AND S2 AND S4 AND S5 FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S9 2 S1 AND S2 AND S4 FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S10 0 S1 AND S3 FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S11 1 S5 NOT PY>2004 FROM 9, 15, 16, 20, 47, 75, 80, 88, 98, 112, 141, 148, 160, 275, 264, 369, 370, 484, 553, 570, 608, 620, 613, 621, 623, 624, 634, 635, 636, 647, 696, 674, 810, 813, 587

S12 0 S S1 AND S2 AND S3 AND S4 AND S5

? type s11/3,k/all

11/3,K/1 (Item 1 from file: 484)

Periodical Abs Plustext

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03906748 Supplier Number: 98393522 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Vaginal delivery following caesarean section--the use of oxytocin and prostaglandins**

Goldman, G A; Kaplan, B; Rabinerson, D; **Biran, G**; et al  
Journal of Obstetrics & Gynaecology ( JOBG ) , v18 n4 , p 328-330  
Jul 1998

ISSN: 0144-3615      **Journal Code:** JOBG

**Document Type:** Feature

**Language:** English      **Record Type:** Fulltext; Abstract

**Word Count:** 2164

...**Biran, G**

? s s1 and s2 and s3

121913      S1

221887      S2

20      S3

S13      0      S S1 AND S2 AND S3

? s s3 not py>2004

Processing

20      S3

28268155      PY>2004

S14      17      S S3 NOT PY>2004

? type s14\3,k\all

>>>E: Set 14\3,k\all does not exist

? Set s14\3,k\all does not exist

>>>E: SET s14\3,k\all is not recognized

? type s14/3,k/all

14/3,K/1 (Item 1 from file: 9)

Business & Industry(R)

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03456836 Supplier Number: 123023431

**Law gives industry a buzz.**

**( teleservices industry; National Do-Not-Call registry )**

Marketing News , v 38 , n 2 , p 11

February 01, 2004

**Document Type:** Journal ISSN: 0025-3790 ( United States )

**Language:** English **Record Type:** Abstract

## **ABSTRACT:**

...the telecallers access to a larger set of consumers as the states have decided to **coalesce** their notified **lists** therein. The stringent penalty laws related to teleservices industry are highlighted.

14/3,K/2 (Item 1 from file: 15)

ABI/Inform(R)

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00703935 93-53156

## **Gearing up for conceptual design**

Puttre, Michael

Mechanical Engineering v115n3 pp: 46-48+

Mar 1993

ISSN: 0025-6501 Journal Code: MEG

Word Count: 2555

**Text:**

The nature of conceptual design, where the first glimmer of product engineering **coalesces** from **lists** of marketing requirements, has distanced its practitioners from many of the tools found in computeraided...

14/3,K/3 (Item 1 from file: 16)

Gale Group PROMT(R)

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09108489 Supplier Number: 79395197 (USE FORMAT 7 FOR FULLTEXT)

## **Formulating Latex Paint with Velate(R) 368 Coalescent.**

Arendt, William D.; Strepka, Arron M.

Paint & Coatings Industry , v 17 , n 10 , p 126

Oct , 2001

Language: English Record Type: Fulltext

Document Type: Magazine/Journal ; Trade

Word Count: 3128

...with Velate 368 in coatings. While the formulation steps are specifically aimed at incorporating the **coalescent**, the steps **listed** should always be considered in the development of any new formulation to gain a clearer...

14/3,K/4 (Item 2 from file: 16)  
Gale Group PROMT(R)  
(c) 2007 The Gale Group. All rights reserved.  
07621841    **Supplier Number:** 63256058 (USE FORMAT 7 FOR FULLTEXT)

**CONSULTANTS' CORNER.**

Paint & Coatings Industry , v 16 , n 3 , p 174  
March , 2000  
**Language:** English    **Record Type:** Fulltext  
**Document Type:** Magazine/Journal ; Trade  
**Word Count:** 626

...coatings to meet new HAP regulations, Where can I get help?  
Many waterborne coatings are **coalesced** with HAP-**listed**  
glycol ethers based on ethylene glycol (E-series ethers). Fortunately,  
glycol ethers based on propylene...

14/3,K/5 (Item 1 from file: 75)  
TGG Management Contents(R)  
(c) 2007 The Gale Group. All rights reserved.  
00297835    **Supplier Number:** 123023431  
**Law gives industry a buzz.(teleservices industry; National Do-Not-Call registry )**

Arnold, Catherine  
Marketing News , 38 , 2 , 11(2)  
Feb 1 , 2004  
ISSN: 0025-3790    **Language:** English    **Record Type:** Abstract

**Abstract:**

...the telecallers access to a larger set of consumers as the states have  
decided to **coalesce** their notified **lists** therein. The  
stringent penalty laws related to teleservices industry are highlighted.

14/3,K/6 (Item 1 from file: 88)  
Gale Group Business A.R.T.S.  
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03492566    **Supplier Number:** 16135325  
Minds and Machines: Journal for AI, Philosophy, and Cognitive Science, vol. 2, no. 4. (book reviews)  
Selfridge-Field, Eleanor  
Notes , v51 , n1 , p168(4)  
Sept , 1994  
**Document Type:** review



ISSN: 0027-4380

Language: English    Record Type: Fulltext

Word Count: 1488    Line Count: 00124

...There are numerous errors in the references (which, in any event, would have been better **coalesced** into one **list** at the end of the book to eliminate rampant duplication) and peculiar locutions here and...

14/3,K/7 (Item 2 from file: 88)

Gale Group Business A.R.T.S.

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03069950    Supplier Number: 14265872

Coalescing: the latest operation in mathematics. (Soundoff) (Editorial)

Long, Vena M.

Mathematics Teacher , v86 , n4 , p274(2)

April , 1993

Document Type: Editorial

ISSN: 0025-5769

Language: English    Record Type: Abstract

**Abstract:** ...students and everyday acquaintances welcome mathematics in their lives. Recommended contacts for becoming an official **coalescer** are also **listed**.

14/3,K/8 (Item 1 from file: 148)

Gale Group Trade & Industry DB

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06439938    Supplier Number: 13628924 (USE FORMAT 7 OR 9 FOR FULL TEXT )

**Gearing up for conceptual design.**

Puttre, Michael

Mechanical Engineering-CIME , v115 , n3 , p46(4)

March , 1993

ISSN: 0025-6501

Language: ENGLISH

Record Type: FULLTEXT; ABSTRACT

Word Count: 2757    Line Count: 00222

**Text:**

The nature of conceptual design, where the first glimmer of product engineering **coalesces** from **lists** of marketing requirements, has distanced its practitioners from many of the tools found in

computer aided...

14/3,K/9 (Item 1 from file: 160)  
Gale Group PROMT(R)  
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00828020

**Racor's new fuel filter/water separator meets special filtration requirements not generally met by conventional in-line and spin-on filters.**

Beverage Industry October 22, 1982 p. 81

...Water and larger solids are separated out by the first stage separation and 2nd stage **coalescing** process. Article **lists** beverage distributors who have installed the system.

14/3,K/10 (Item 1 from file: 275)  
Gale Group Computer DB(TM)  
(c) 2007 The Gale Group. All rights reserved.  
02124495 **Supplier Number: 19810423 (Use Format 7 Or 9 For FULL TEXT )**  
**Doing bad things well - Part 1. (working with real databases) (SQL for Smarties) (Technology Information)(Column)**

Celko, Joe  
DBMS , v10 , n11 , p20(3)  
Oct , 1997  
**Document Type: Column**  
ISSN: 1041-5173  
**Language: English Record Type: Fulltext; Abstract**  
**Word Count: 1857 Line Count: 00178**

...because there is no other value to its right to shift into it. Likewise, the **COALESCE()** function parameter **list** does not need to include the current payment itself since we already know it is...

14/3,K/11 (Item 2 from file: 275)  
Gale Group Computer DB(TM)  
(c) 2007 The Gale Group. All rights reserved.  
02057104 **Supplier Number: 19036817 (Use Format 7 Or 9 For FULL TEXT )**  
**DB2's outer join. (SQL enhancements in DB2 for MVS/ESA Version 4.1)(Product Announcement)**

Favero, Willie  
Enterprise Systems Journal , v11 , n12 , p42(42)  
Dec , 1996

**Document Type:** Product Announcement

ISSN: 1053-6566

**Language:** English    **Record Type:** Fulltext; Abstract

**Word Count:** 2791    **Line Count:** 00240

...ANSI SQL92 name given to the VALUE scalar function introduced in DB2 Version 2.3. **COALESCE** uses a **list** of columns as an operand and returns the first nonnull value from any column in...

14/3,K/12 (Item 3 from file: 275)

Gale Group Computer DB(TM)

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01998647    **Supplier Number:** 18733359 (Use Format 7 Or 9 For FULL TEXT )

**Going to extremes. (Examples of programming in SQL) (includes related article containing answer to a puzzle in the main article) (Technology Tutorial)**

Celko, Joe

DBMS , v9 , n11 , p20(4)

Oct , 1996

ISSN: 1041-5173

**Language:** English    **Record Type:** Fulltext; Abstract

**Word Count:** 3056    **Line Count:** 00239

...not a fixed number of parameters. The SQL Standards Committee did not mind defining the **COALESCE**(<comma separated **list**>) function in SQL-92, which scans the list from left to right and returns the ...

14/3,K/13 (Item 4 from file: 275)

Gale Group Computer DB(TM)

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01522599    **Supplier Number:** 12394953 (Use Format 7 Or 9 For FULL TEXT )

**Some fun puzzles: parts of programming - not all parts, but some - are just like solving puzzles. (Expert's Toolbox)(column) (Tutorial)**

Bourbaki, Nickieben

AI Expert , v7 , n7 , p17(5)

July , 1992

**Document Type:** Tutorial

ISSN: 0888-3785

**Language:** ENGLISH    **Record Type:** FULLTEXT; ABSTRACT

**Word Count:** 3493    **Line Count:** 00246

**Abstract:** ...such lists appear next to each other. Therefore, maximal subsequences of predicate-failing elements are coalesced into lists. The final puzzle gives a function that is a composition of 'car's' and 'cdr...

...lists appear next to each other. That is, maximal subsequences of predicate-failing elements are **coalesced lists**. For example, the input consisting of the function numberp and the list:  
(1 a a...

14/3,K/14 (Item 1 from file: 484)

Periodical Abs Plustext

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07411508 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**The Reputations Legislators Build: With Whom Should Representatives Collaborate?**

Crisp, Brian F; Kanthak, Kristin; Leijonhufvud, Jenny

American Political Science Review ( GAPS ), v98 n4 , p 703-716

Nov 2004

ISSN: 0003-0554      **Journal Code:** GAPS

**Document Type:** Feature

**Language:** English      **Record Type:** Fulltext; Abstract

**Word Count:** 12858

**Text:**

...234) .

The combination of a two-member district with d'Hondt seat allocation formula encourages **coalescence** into two **lists** and movement of those lists away from the median voter. Open-list competition should encourage...

14/3,K/15 (Item 2 from file: 484)

Periodical Abs Plustext

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05458432 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Not just your old man's takeover**

Christgau, Robert

Village Voice ( GVIV ), v47 n7 , p S2-S4+

Feb 19, 2002

ISSN: 0042-6180      **Journal Code:** GVIV

**Document Type:** Commentary

**Language:** English      **Record Type:** Fulltext; Abstract

**Word Count:** 3971

**Text:**

...thin by design-much thinner than Dylan's guys recycling singer-with-- backup riffs that **coalesce** as you **listen** up. As in much

lo-fi, this thinness is a raised finger-guitars matter so...

14/3,K/16 (Item 1 from file: 570)

Gale Group MARS(R)

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02437297 Supplier Number: 123023431

**Law gives industry a buzz.(teleservices industry; National Do-Not-Call registry )**

Arnold, Catherine

Marketing News , v 38 , n 2 , p 11(2)

Feb 1 , 2004

ISSN: ISSN: 0025-3790

**Language:** English **Record Type:** Abstract

**Document Type:** Magazine/Journal ; Trade

**Abstract:**

...the telecallers access to a larger set of consumers as the states have decided to **coalesce** their notified **lists** therein. The stringent penalty laws related to teleservices industry are highlighted.

14/3,K/17 (Item 1 from file: 624)

McGraw-Hill Publications

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0364592

"From" will contain the string we put into \$from before, and

Technical Editor\Rik Farrow

Unix World, Vol. VIII, No. 8, Pg 115

August, 1991

JOURNAL CODE: UNIX

SECTION HEADING: Hands-On Help ISSN: 0739-5922

WORD COUNT: 1,817

**TEXT:**

...on the command line, it reads from STDIN by default.

On line 10, we've **coalesced** the **list** of things

to print into one double-quoted string. As in the shell, a double...